

Application No. 09/101,508

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-13. (Canceled)

14. (Currently Amended) A priming device for a detonator, comprising:

timing means for establishing a timing interval and for timing the action of a firing element of a primer ^{goals} wherein timing means comprises switching means;

an electrical power supply that provides a first power intensity to the timing means; and

power generating means for generating, ~~through a resistive circuit and charged capacitor;~~ a second power intensity sufficient to actuate the firing element upon expiration of ^{the} ~~a~~ timing interval, wherein the timing means and power generating means have resistors ^{112(2) which one?} limiting ~~the current~~ power intensity, the first power intensity from the power supply not being sufficient, ~~even as other components fail,~~ to actuate the firing element even if the switching means fails.

15. (Currently Amended) The device of claim 14, wherein the ~~power generating~~ timing means further comprises a capacitor, switching means, and controlling means, the controlling means controlling the switching means by allowing the capacitor to be charged for a charging time and then discharged, the discharge causing the firing element to act on the primer.

16. (Currently Amended) A priming device for a detonator, comprising:

~~an electrical power supply~~ a timing means for establishing a timing interval and for timing the action of a firing element of a primer; and

~~power generating means for generating, through a resistive circuit having resistors limiting current intensity;~~ a current intensity sufficient to actuate the firing element

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upon expiration of a timing interval, the ~~power generating~~ timing means comprising a capacitor, switching means, and controlling means for controlling the switching means by allowing the capacitor to be charged for a charging time during the timing interval and then discharged, the discharge causing the firing element to act on the primer. wherein the timing means and power generating means have resistors to prevent actuation of the firing element even if the switching means fails.

What if the
switching means
does not fail?

17. (Previously Added) The device of claim 16, wherein the control means comprises a microcontroller.
18. (Previously Added) The device of claim 17, wherein the switching means comprises transistors.
19. (Previously Added) The device of claim 17, wherein the timing means have programming means for programming the timing interval.
20. (Previously Added) The device of claim 19, wherein the programming means have at least one code wheel electrically connected to the microcontroller.
21. (Previously Added) The device of claim 20, wherein the code wheel is luminescent.
22. (Previously Added) The device of claim 19, wherein the programming means comprises external programming means and information transferring means for transferring programmed data from the external programming means to the microcontroller.
23. (Previously Added) The device of claim 22, wherein the external programming means comprises an electrical power supply, a microcontroller, a display, and two programming switches.
24. (Previously Added) The device of claim 22, wherein the information transferring means comprises phototransistors.

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25. (Previously Added) The device of claim 22, wherein the external programming means comprises a microcomputer.

26. (Previously Added) The device of claim 22, wherein the information transferring means comprises an electrical connector connected to the microcontroller.

27. (Previously Added) The device of claim 16, wherein the switching means comprises a mechanical timing means.

28. (Previously Added) The device of claim 16, further comprising booby-trap means for deliberately authorizing firing of the primer.

29. (Previously Added) The device of claim 28, wherein the booby-trap means comprises a tripwire connected to the microcontroller.

30. (Canceled)

31. (Canceled)

} must cancel in heading

112C(1) 32. (New) The device of claim 14, wherein the switching means comprises a plurality of resistors and an electromechanical assembly.

where? Also, if resistors fail, how will current be limited?

112C(1) 33. (New) The device of claim 16, wherein the switching means comprises a plurality of resistors and an electromechanical assembly.

where?